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Introduction

1.1 Overview

This satellite receiver is designed for the reception of free-to-air and encrypted channels. Depending on your location, enjoy the rich choice of up to 10,000 different channels broadcasting a large range of programs: culture, sports, cinema, news, events, etc. This receiver is assembled with highly qualified electronic parts.

1.2 Main Features

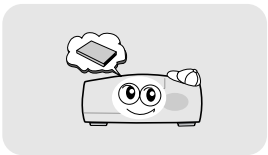
- Compliant MPEG-II/ MPEG-IV/ H.264.
- 2 tuner combo (DVB-Satellite & DVB-Terrestrial)
- Compliant DVB-S/ S2 satellite standard & DVB-T standard
- Output resolution 576p & 576i, 720p, 1080i
- 1 HDMI output
- Multisatellite search.
- On-screen display with true color full resolution.
- DiSEqC control version 1.0, 1.1, 1.2 and USALS compatible.
- Enhanced 16 favorite channel groups.
- Powerful channel control by favorites, lock, skip, move and delete function.
- Channel sort by alphabet, transponder and CAS.
- Multilingual GUI (OSG & Menu): English, Spanish, Portuguese, French, German, Italian, Turkish, Arabic, Persian, Russian, Greek, Czech, Romanian.
- Installation wizard
- Extended EPG and program reservation on EPG.
- Teletext & Subtitle by OSD and VBI
- Last channel memory function.
- Total 10,000 channels programmable.
- Preprogrammed channels (Optional)
- Dolby digital audio output (S/PDIF)
- S-Video
- Component output (YPbPr)
- Various games
- Software & channel database upgrade via RS-232C: PC to STB/ STB to PC.
- Parental lock / Installation lock / receiver lock.
- Zoom in function on pause/ live channel
- Multipicture display.
- Video color adjustment function.
- High speed software upgrade via USB 2.0
- MP3 play and JPEG viewer
- Support 2 USB Port on Front Panel & Rear Panel
- eSATA (External SATA Interface, 7200RPM support only)
- Lan 10/100Mbps Ethernet
- Standby Power consumption MAX. 1W
- DOLBY DIGITAL PLUS Manufactured under license from Dolby Laboratories. "Dolby" and the double-D Symbol are trademarks of Dolby Laboratories.

DiSEqC is a trademark of EUTELSAT

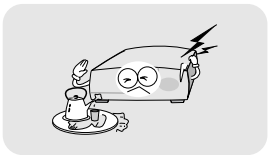
Safety/Precautions

2.1 Safety

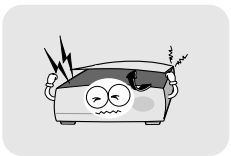
Be sure to read this user's manual before starting the operation of the unit.



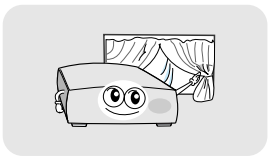
Do not touch the power cord with wet hands as it may cause electric shock.



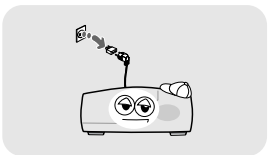
Never open the cover. It is very dangerous to touch the inside of the unit due to possible electric shock.



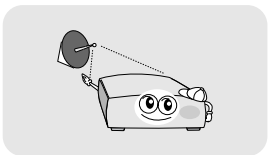
Place the unit in a well ventilated and no-heat environment.



When you do not use this unit for a long time, make sure that power cord is pulled out from the outlet. Also do not use a damaged power cord as it may cause fire or electric shock.



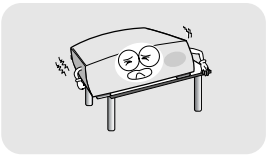
A professional installation is required. If reception is interrupted, contact your local service centre.



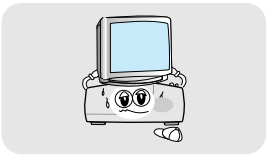
2.2 Precautions

When installing the unit

Install the unit horizontally. An uneven installation may cause the unit to be damaged.

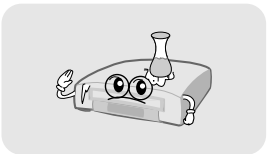


Do not put heavy items such as a TV set on the unit. That may damage the unit.



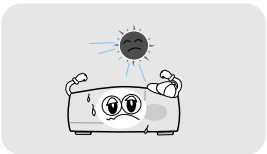
Do not leave the unit where the water drops or splashes.

Do not put water holding items such as vases on the unit.

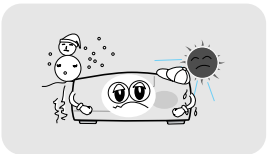


Do not install the unit:

- **Where it is subject to vibrations**
- **Where it is exposed to direct sunlight**
- **Where there is humidity**
- **Where the temperature is too high or too low.**
- **Where there is no ventilation**



Moving the unit to a hot area from a cold one will cause condensation. Do not operate the unit for one or two hours or until it has dried completely.



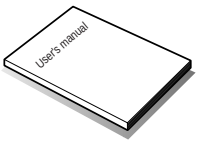
▶ The mains plug is used as the disconnect device.
The disconnect device shall remain readily operable.

Points to Check before Use

3.1 Accessories

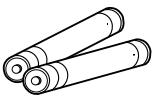
The accessories below are included with this receiver:

User's manual : 1



Remote control : 1

Batteries (AAA type) : 2



HDMI cable : 1

▶ If any of the above-listed accessories is missing, contact your sales representative.

3.2 The Satellite dish

Your dish should be properly installed and azimuth and elevation must be precisely set up.

▶ This unit supports DiSEqC 1.2 and can work with a compatible antenna positioner. Ask your dealer for information.

Controls/Functions

4.1 Front Panel

1 **Standby/Power on Indications Lamp** : Flashes red light in "Standby" mode and shows no light in "Power ON" mode.

2 **Power** : Switches the receiver between "Standby" and "Power ON" modes.

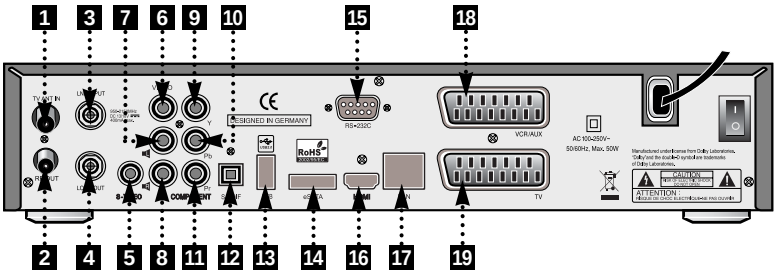
3 **Menu** : To enter or exit the main menu.

4 **Select** : To show the Channel List in non-menu mode and select on item or confirm in menu mode.

5 - **6** **VOL** (◀/▶) : To change the volume level in non-menu mode and modify a setting in menu mode.

7 - **8** **CH** (▼/▲) : To switch channels or change the cursor position on the application screen.

4.2 Rear Panel



No.	Name	Connector	Function
1	TV ANT IN	IEC 169-2 FEMALE	Input from terrestrial antenna
2	RF OUT	IEC 169-2 MALE	Loop-through output from digital tuner and Output to TV
3	LNB INPUT	IEC 169-24 FEMALE	IF input from LNB to digital tuner
4	LNB OUT	IEC 169-24 FEMALE	IF loop-through output from digital tuner
5	S-VIDEO	MINI-DIN	S-VHS Output
6	VIDEO	RCA cinch	Composite video output
7	AUDIO L	RCA cinch	Left audio output
8	AUDIO R	RCA cinch	Right audio output
9	Y	RCA cinch	Component video output(Y)
10	Pb	RCA cinch	Component video output(Pb)
11	Pr	RCA cinch	Component video output(Pr)
12	S/PDIF	Fiber Optic	Digital audio output (Optical)
13	USB	USB A-type	USB 2.0
14	eSATA	E-SATA	External SATA
15	RS-232C	DB-9	Low speed serial port
16	HDMI	HDMI	Digital Video/Audio Output
17	LAN	RJ-45	10/100Mbps Ethernet
18	VCR/AUX SCART	SCART	CVBS Video Output CVBS, RGB Video Input Audio Output
19	TV SCART	SCART	CVBS Video Output, Audio Output

4.3 Remote controller

1 **POWER :** To turn the receiver On/Off.

2 **TV/RADIO :** To switch between TV and Radio.

3 **MUTE :** To turn the sound On/Off.

4 **TEXT :** To show the teletext contents if teletext is transmitted. Used for special functions in menu mode.

5 **SUBTITLE :** To show the subtitle contents if subtitle is transmitted.

6 **AUDIO :** To show the Multi-language audio track, the stereo-mono mode and subtitle information. Used for special functions in menu mode.

7 **MOSAIC :** To display multiple pictures.

8 **SLEEP :** To set the STB off after minutes.

9 **FREEZE :** To pause the video. Press again to resume the video.

10 **ZOOM :** To zoom In/Out.

11 **GUIDE :** To show the TV/Radio program guide.

12 **INFO :** To show information about the current program. Press twice to show detail.

13 **RECALL :** To move to the previous channel. Used for special functions in menu mode.

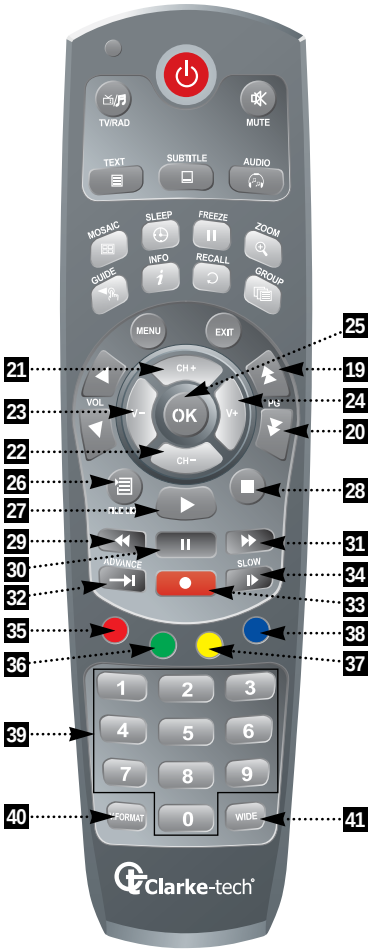
14 **GROUP :** To change the channel groups(Satellites or favorite groups).

15 **MENU :** To enter or exit the main menu.

16 **EXIT :** To exit from the present menu and move to the previous menu.

17 - 18 **Vol Up & Down :** To change the volume level in non-menu mode.

4.3 Remote controller



19 - **20** **Double arrow Up/Down :** To move to the next or previous page when many pages are available.

21 - **22** **Up & Down :** To switch channels in non-menu mode and move the cursor up/down in menu mode.

23 - **24** **Left & Right :** To change the volume level in non-menu mode and modify a setting in menu mode.

25 **OK :** To show the Channel List in non-menu mode and select an item or confirm in menu mode.

26 **FILELIST :** To display the filelist.

27 **PLAY :** Play Content.

28 **STOP :** Stop Playback.

29 **RWD :** Playback in rewind mode.

30 **PAUSE :** Pause playback.

31 **FWD :** Playback in forward mode.

32 **ADVANCE :** Go to live channel.

33 **REC :** Start recording.

34 **SLOW :** Playback in slow mode.

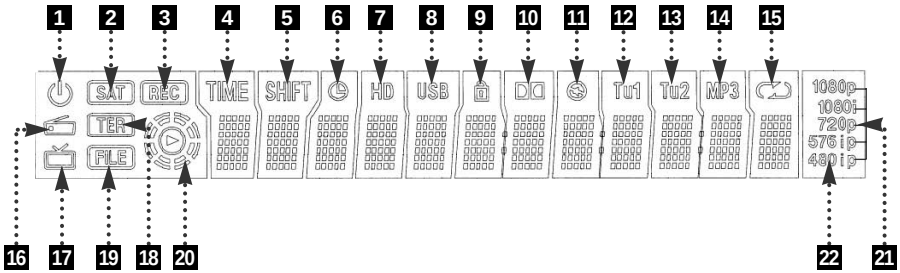
35 - **38** **Color Key :** Select the option such as View List, Select Disk, Rename.

39 **Numeric Keys (0-9) :** To enter numerical settings (such as channel numbers) directly.

40 **V.FORMAT :** To switch the resolution of video output.

41 **Wide :** To select a TV aspect ratio with Pan Scan or Letter-Box(4:3) (Full screen or Pillar box(16:9).

4.4 Front Display



1		Indicates Power (On/Off) mode
2	SAT	Lights when the signal comes in via satellite dish
3	REC	Lights when the current channel is recording
4	TIME	Lights when Time-Shift Mode is set to enable
5	SHIFT	Lights when Time-Shift Mode is set to enable
6		Lights when a timer setting in standby mode
7	HD	Lights when the signal is HD
8	USB	Lights when USB devices is connected
9		Indicates the current channel is set to Lock mode
10	DD	Lights when the current chanel is Dolby audio format
11		Lights when the current sound is set to Off
12	Tu1	Feature not supported
13	Tu2	Feature not supported
14	MP3	Ligths when Mp3 player is enabled
15		Lights when loop mode is setting in Mp3 player
16		Lights when the current channel is Radio mode
17		Lights when the current channel is TV mode
18	TER	Lights when the signal comes in via TV Antenna
19	FILE	Indicates when the current playback mode in file list
20		Lights when Media & Recorded file is playing and revolving on the outer circle
21	1080i	Indicates the resolution of video ouput
22	(576)i p	Indicates the Progressive or interlaced scanning mode

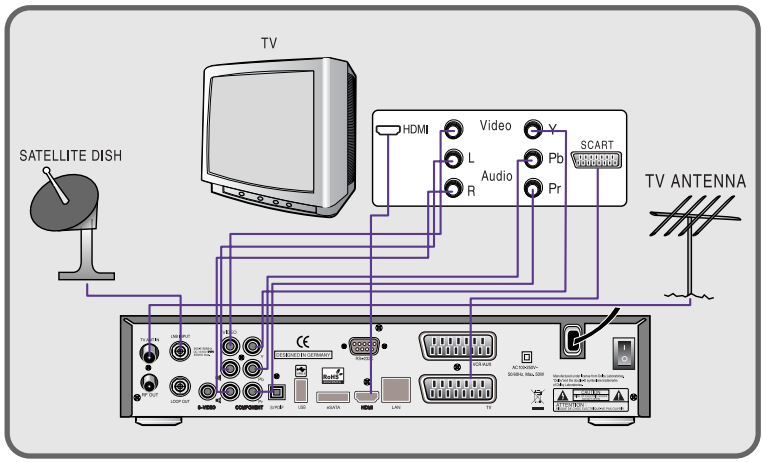
How to Connect

When Connecting the Receiver to a TV with RF connectors

1 **Connect the TV antenna to TV ANT IN**

2 **Connect the Video and Audio of the TV to Video and Audio: connect the red and white connectors to Audio R and Audio L, and the yellow connector to Video**

3 **Connect your satellite dish**



Operation

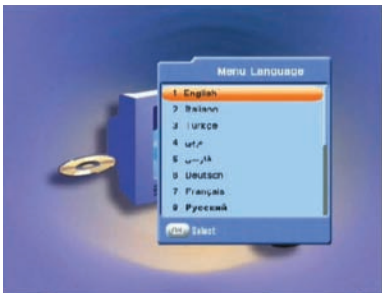
6.1 Getting Started

After your receiver is powered on, proceed with installation as follows :

1) Menu Language Setting

❶ Turn on your TV and receiver.

❷ The pop-up menu for language selection will appear.<Figure 6.1.1>
Select one language and press OK to proceed.



<Figure 6.1.1>

2) Country Setting

❶ Select a country and press the OK button on.

<Figure 6.1.2>

3) Antenna Setup

❶ Press the **MENU** button to display the main menu.

❷ Use / and / to move in the menu.

❸ Press on 'Dish Setting'. The following window will appear. <Figure 6.1.3>
If you have a motorized dish, press on 'Motorized Setting'. < Figure 6.1.4>

∗ ***Note : Enter a 4-Digit password if need arise. The default password is '0000'.***

<Figure 6.1.3>

<Figure 6.1.4>

❹ Select the item that you want to edit, and set its parameters as desired. <Dish Setting>

- **LNB Power :** Select among ON/OFF/13V/18V.
- **LNB Type :** Select among Single/Universal/OCS.
- **LNB Freq :** Set the frequency of the LNB oscillator.
- **22KHz :** When not AUTO, set the signal path from LNB or switch by selecting a control signal among 0/22KHz.
- **DiSEqC 1.0 :** Select DiSEqC 1.0 Port.
- **DiSEqC 1.1 :** Select DiSEqC 1.1 Port.

❺ Select the item that you want to edit and set its parameters as desired. <Motorized Setting>

- **Frequency :** If the default TP frequency is not appropriate, you can select another TP frequency at which to check for signal.
- **DiSEqC Motor :** Select DiSEqC protocol among OFF/1.2/USALS as appropriate for your Motor.

(When the DiSEqC Motor parameter is set as 1.2)

- **Move :** You can move the dish to the West/East.
- **Limit :** If you want to set limits, press OK.
- **Disable Limit :** You can disable the East and West limits.
- **Goto Center :** Move the dish to the initial 0 position.
- **Set East / West Limit :** Move the dish East or West using ◀ / ▶.
  Press OK to set East or West limit.

(When the DiSEqC Motor parameter is set as USALS)

- **Sat Degree :** Satellite location.
- **Antenna Position :** Press OK.
- **Goto Reference :** Move the dish to the reference 0 position.
- **Antenna Longitude :** Your longitude at present.
- **Antenna Latitude :** Your latitude at present.

∗ ***Note : You need to know what LNB you are using to correctly set the L.O. (local oscillator) frequency.***

∗ ***Note : You need to understand how your receiver is connected to properly set the 22KHz and DiSEqC.***

⑥ When you are done, press the **EXIT** button.

4) Satellite Scan

Through this function, the receiver searches for all the available channels and saves them in memory.

▶ **Auto Scan <Figure 6.1.5>**

❶ To select more than one satellite, press the RED button when the selection bar is positioned on the satellite.

❷ Press OK on the names of the satellites that you want to scan under 'Satellite List'. Press the EXIT button to close the 'Satellite List'.

❸ Press ◀ / ▶ and set the 'Search Type' and 'Network Search' parameters.

- **Search Type :** Decide for which channels to search (All channels/ Free channels only/ TV channels only).
- **Network Search :** Set ON to find more transponders (frequencies) through a Network Information Table (NIT) scan. That is, when the broadcaster is sending a NIT through a given transponder, the receiver will also scan for transponders listed in the NIT and not otherwise recognized. (this can happen when a transponder is new)

❹ Press OK under 'SCAN' to scan the selected satellites. <Figure 6.1.6>

<Figure 6.1.5>

<Figure 6.1.6>

▶ **Blind Scan <Figure 6.1.7>**

❶ Select the satellites you want to search by pressing the button on the remote.

❷ Press / to set the "Frequency" and "Polarization" and "Scan Mode" options.

- **Frequency :** Select TP frequency
- **Polarization :** Select Vertical / Horizontal / All.
- **Scan Mode :** All / Free / TV
  - **All :** To search all the Free To Air and scrambled channels, TV & Radio channels.
  - **Free :** To search Free To Air channels only.
  - **TV :** To search TV channels only.

❸ **SCAN** : Begin channel search of the selected satellites.

▶ **Manual Scan <Figure 6.1.8>**

❶ Select a transponder.

❷ To change a transponder's information (Frequency, Symbol Rate), use the **NUMERIC** buttons.

❸ To add a new transponder, press the **GREEN** button.

❹ To delete a transponder, press the **YELLOW** button with the cursor next to the Frequency parameter.

❺ To search a transponder, set its different parameters and press .

<Figure 6.1.7>

<Figure 6.1.8>

▶ **Package Identifier (PID) Scan <Figure 6.1.9>**

❶ Select a transponder.

❷ To change a transponder's information (Frequency, Symbol Rate), use the **NUMERIC** buttons.

❸ To add a new transponder, press the **GREEN** button.

❹ To delete a transponder, press the **YELLOW** button with the cursor next to the Frequency parameter.

❺ To search a transponder, set its different parameters and press / . You can search a specific channel of the transponder by setting its PID data (Video, Audio and PCR).

<Figure 6.1.9>

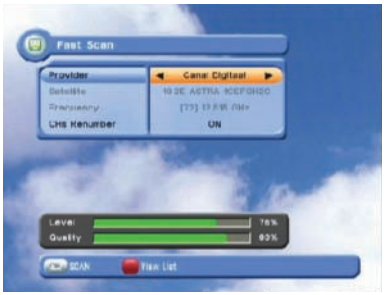
∗ ***Note : If you cannot access programs after correctly completing a scan procedure, please contact your seller or your installer.***

▶ **Fast Scan <Figure 6.1.10>**

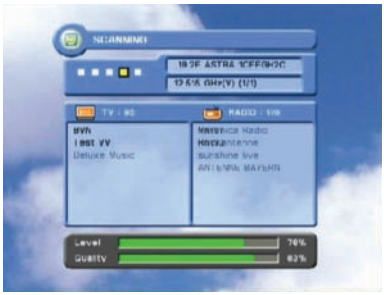
❶ For Provider choose either Canal Digitaal or TV Vlaanderen.

❷ For CHs Renumber select ON/OFF

❸ Press the **Red** button.



<Figure 6.1.10>



<Figure 6.1.11>

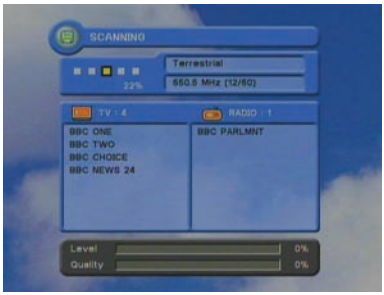
5) Terrestrial Scan

Through this function, the receiver searches for all the available channels and saves them in memory.

▶ **Auto Scan <Figure 6.1.12>**

❶ Press the **YELLOW** button when the selection bar is positioned on any item and "Scanning menu" will appear on the screen. <Figure 6.1.13>

<Figure 6.1.12>



<Figure 6.1.13>

6.1 Getting Started

▶ **Manual Scan <Figure 6.1.14>**

❶ Select the channel number or frequency you want to search for select the channel number by pressing **CH ▼**or **CH ▲** on the remote control, or specify a frequency by entering the frequency with the number keys. <Figure 6.1.15>

❷ For the **Bandwidth** choose either 7 MHz or 8 MHz.

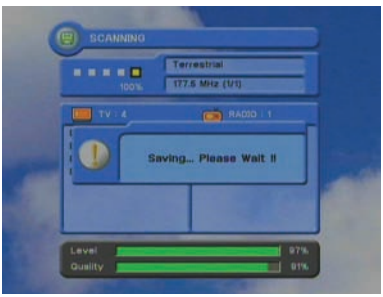
❸ For the **Search Type**, select **All Channel, FTA Only** or **TV Only**.

❹ For **Network Search**, select **ON** to find the most channels available.
The strength and quality of the signal from the selected channel is shown by the **Level** and **Quality** indicators near the bottom of the screen.

❺ For Antenna Supply 5V, select ON / OFF.

❻ Press OK to begin the scan.

<Figure 6.1.14>



<Figure 6.1.15>

6) Channel List

You can use / to navigate between channels until you find the channel you want.

- If you know the channel number, you can enter it with the **NUMERIC** buttons and wait 2 seconds until the channel is changed.
- If you know the channel name or transponder or CAS, you can press to display the channel list <Figure 6.1.16>

<Figure 6.1.16>

❶ In the left side of screen, detailed information about the selected channel will be displayed. (Satellite Name, Frequency(Polar) and Channel Name)

❷ You can use the following buttons to navigate between channels:

- / **:** Moves one channel up/ down.
- / **:** Moves one page up / one page down.
- **RED :** Shows all channels in the current group.
- **GREEN :** Shows all channels sorted alphabetically.
- **YELLOW :** Shows all channels sorted by Transponder.
- **BLUE :** Shows all channels sorted by CAS system.

❸ Press when the selection bar is positioned on the desired channel.

7) Other Functions of the Remote Control

▶ **Volume Control**

❶ While watching a program, press ◀ or ▶ to control the volume.

❷ You can press the **MUTE** button to remove the sound of the program: the mute icon will be displayed. Press the **MUTE** button again to turn the sound back on.

▶ **Channel Information**

❶ You can press the **INFO** button to display the information banner for a few seconds.

❷ If you then press the **INFO** button again, a detailed banner will be displayed.

▶ **TV/ RADIO switching**

You can press this key to change from a TV channel to a Radio channel or vice versa.

▶ **RECALL**

Press to return to the previous channel.

▶ **Audio**

Press to adjust the subtitle and/or audio status of the current channel:

- **Audio Mode :** Select between, Stereo → Mono-Left → Mono-Right
- **Audio Track :** Select between tracks available in this program
- **Audio Level :** Select between, High → Medium → Low

∗ ***Note : These subtitle and audio parameters are workable only when the desired channel supports these functions.***

▶ **TEXT**

The Teletext service is a text data service sometimes available from the Service Provider.

▶ **FREEZE**

You can press this key to freeze the video. Press it again to resume the video.

▶ **GROUP**

When watching TV or listening to Radio, you can press this button to view the list of satellites and/or favorite channel groups.
Only registered satellites and favorite groups are displayed.

▶ **Multi Picture Display <Figure 6.1.17>**

You can press to display multiple pictures; you can choose the number of pictures such as 1X2, 2X2, 2X3 or 3X3.

<Figure 6.1.17>

▶ **ZOOM**

You can press to zoom in the video. <Figure 6.1.18>

❶ Press the FREEZE button and press . You can zoom in sections of Freezed Video <Figure 6.1.19>

❷ While watching a program, press . You can zoom in sections of playing video.

❸ To cancel the freeze status, please release the zoom status.

<Figure 6.1.18>

<Figure 6.1.19>

6.1 Getting Started

▶ **SUBTITLE <Figure 6.1.20>**

You can press to select the subtitle language of current channel.

▶ **SLEEP <Figure 6.1.21>**

You can set the your receiver to turn off after a few minutes. Press to set the sleep timer.

- To cancel the sleep timer, please press until you set time as "0 min".
(Disable, 10, 20, 30, 60, 100, 120 Minutes)

<Figure 6.1.20>

<Figure 6.1.21>

▶ **V.FORMAT <Figure 6.1.22>**

You can press to change the video resoultion Select between, 1080i → 720p → 576p → 576i.

▶ **WIDE <Figure 6.1.23>**

You can press to change the TV aspect ratio.

- **4:3** : Pan-Scan or Letter-Box

-**16:9** : Full-Screen or Pillar-Box

<Figure 6.1.22>

<Figure 6.1.23>

6.2 System Setting

1) Time Settings

This submenu allows you to set your local time, wake up time, wake up channel and sleep time. <Figure 6.2.1>

- **GMT Usage :** Set this ON for the local time to be determined by adjusting the time difference with the GMT (Greenwich Meantime) according to your location.
- **Current Date :** If GMT Usage is OFF, you can modify the date by pressing OK.
- **Current Time :** If GMT Usage is OFF, you can modify the time using the **NUMERIC** buttons.
- **Summer Time :** Select the period during which Summer Time is in force.
- **Local Offset :** If GMT Usage is ON, Local time is GMT time + Local Offset.
- **Wake Up Mode :** Select the wake up frequency. (Off/Once/Daily)
- **Wake Up Time :** Set the wake up time using the **NUMERIC** buttons.
- **Wake Up Channel :** Press OK to set the wake up channel.
- **Sleep Mode :** Select the Sleep frequency. (Off/Once/Daily)
- **Sleep Time :** Set the sleep time using the **NUMERIC** buttons.

<Figure 6.2.1>

6.2 System Setting

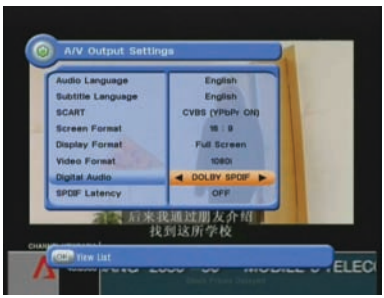
2) A/V Output Settings

This submenu allows you to specify the audio/video output. <Figure 6.2.2>

- **Audio Language :** Set the default audio language when selecting a channel.
- **Subtitle Language :** Set the default subtitle language.
- **SCART :** Select the SCART output.(CVBS/RGB)
- **Screen Format :** Select the screen format. (16:9 / 4:3)
- **Display Format :** Select the TV aspect ratio(Letter Box/Pan Scan, Full Screen/Pillar Box)
- **Video Format :** Select the Scanning type(Interaced, Progressive)
- **Digital Audio** : Select the Audio output type (Dolby/PCM)

  PCM - Select this option only if the stereo system or amplifier cannot decode Dolby

  DOLBY DIGITAL - Select this option only if the stereo system or amplifier can decode both Dolby Digital and Linear PCM signals.
- **SPDIF Latency :** Audio delay is adjustable as 10ms between 0 and 500ms(max.) at optical output.



<Figure 6.2.2>

3) OSD Settings

This submenu allows you to set the menu language, OSD transparency and Information and Volume timeouts. <Figure 6.2.3>

- **Menu Language :** Select the desired language for the menu.
- **Transparency :** Set the OSD transparency of the menu. (1% ~ 100%)
- **Information Timeout :** Select the display duration of the information banner. (1, 2, 3, 5 or 10 seconds)
- **Volume Timeout :** Select the display duration of the volume box. (1, 2, 3, 5 or 10 seconds)

<Figure 6.2.3>

4) Front Display Setting

This submenu allows you to set the blue light, text moving & channel number on the front window.<Figure 6.2.4>

- **Blue Light :** Turn the blue light ON/OFF.
- **Text Moving :** Turn the text moving ON/OFF.
- **Channel Number :** Turn the channel number ON/OFF.

<Figure 6.2.4>

6.2 System Setting

5) Security Settings

This submenu allows you to set password options and to lock or unlock access to menus (Note : PIN code and password are the same). <Figure 6.2.5>

- **Receiver Lock :** Set ON to require entering a PIN code at powering on.
- **Install Lock :** Set ON to require entering a PIN code to access the installation menu.
- **Channel Lock :** Set ON to require entering a PIN code to access the channels menu.
- **Lock Channel Confirm :** Set ON to require entering a PIN code to access a locked channel.
- **Age Limit :** Set to prevent children or unauthorized people from watching programs. Select among (Free/ 8 above/12 above/15 above/18 above). When program information (age limit) is available from broadcaster and this age limit exceeds the selection, a PIN code is required to access the channel/program.
- **Current Password :** To change your password, first enter your current password.
- **New Password :** Enter the new password that you want to set.
- **Verify Password :** Enter the new password again for confirmation.

∗ Note : The default password is '0000'.

<Figure 6.2.5>

6) Database Reset

This submenu allows you to restore the factory set values (useful when encountering problems after changing settings). <Figure 6.2.6>

- **Delete Radio Channels :** Erase all radio channels in the database.
- **Delete Scramble Channels :** Erase all scramble channels in the database.
- **Delete All Channels :** Erase all channels.
- **Factory Set :** Erase all channels and restore the factory default settings.

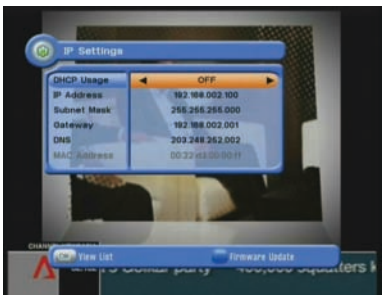
<Figure 6.2.6>

6.2 System Setting

7) IP Setting

If the Network supports DHCP , IP settings can be allocated automatically. If the Network does not support DHCP, the Addresses must enter manually (Static IP). <Figure 6.2.7>

- **DHCP Usage** : On/Off to receive IP settings automatically
- **IP Address** : Here enter the IP address
- **Subnet Mask** : Here enter Subnet Mask Number from your Network
- **Gateway** : Here enter IP address of Gateway (e.g. router)
- **DNS** : Here Enter IP address of main DNS Server
- **Mac Address** : Mac Address display



<Figure 6.2.7>

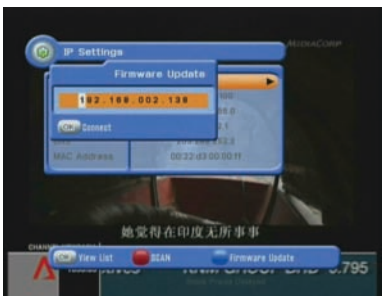
- Firmware update : Support download from a LAN. <Figure 6.2.8>

❶ BLUE button, appear input target IP address.

❷ button to connect after input a target IP.

❸ Choose a update software and (OK)button for downloading. <Figure 6.2.9>

∗ Note : Have to run PC tool before connect PC.



<Figure 6.2.8>

<Figure 6.2.9>

8) Data Transfer

This submenu allows you to transfer the software from a receiver to another receiver. You can select and transfer Firmware/ Channel Data/ Games. <Figure 6.2.10>

- Firmware : Transfer the firmware of a receiver to another receiver.

- Channel Data : Transfer the channel data of a receiver to another receiver.

<Figure 6.2.10>

6.3 Channels

1) Set Favorites

This submenu allows you to set up favorite groups of channels. You can select **TV** or **Radio** channels in an alternative way by pressing the **TV/RADIO** button. The receiver supports 16 favorite groups.

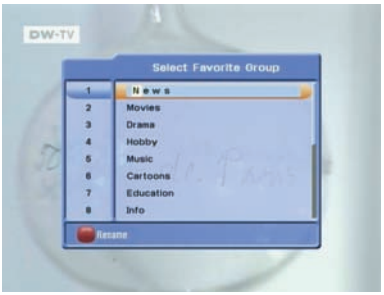
❶ Press OK on 'Set Favorites'. The list of groups will be displayed. <Figure 6.3.1>

❷ Press ◁ / ▷ and OK to choose a group. The following menu will be displayed. <Figure 6.3.2>

If you want to change the name of a favorite group, press the **RED** button.

❸ Press OK to add (or remove if previously added) the selected channel to/from the favorite channel group.

❹ Press the **EXIT** button to return to the previous menu.



<Figure 6.3.1>

<Figure 6.3.2>

2) Edit Channels

This submenu allows you to rename channels and input user PID. You can select **TV** or **Radio** channels in an alternative way by pressing the **TV/RADIO** button. You can choose a channel list group by pressing the **GROUP** button.

❶ Press OK on 'Edit Channels'. The following menu will be displayed. <Figure 6.3.3>

❷ Press OK on the channel that you want to edit.

❸ Press OK on 'Edit Name' to rename the channel; the keypad will be displayed.

❹ Similarly, you can edit the PID data using the **NUMERIC** keys.

∗ Note : The VIDEO PID, AUDIO PID and PCR PID are very important for optimal satellite signal reception. We recommend you get professional advice where available.

<Figure 6.3.3>

6.3 Channels

3) Move Channels

This submenu allows you to move channels.
You can select TV or Radio channels in an alternative way by pressing the **TV/RADIO** button.
You can choose a channel list group by pressing the **GROUP** button.

❶ Press OK on 'Move Channels'. The following menu will be displayed.<Figure 6.3.4>

❷ Press OK on the channel that you want to move; a 'move' icon will be displayed.

❸ Use the ◀ / ▶ / ▲ / ▼ / **NUMERIC** buttons to move the selected channel.

❹ Press OK again to place the channel.

❺ Press the **EXIT** button to return to the previous menu.

<Figure 6.3.4>

4) Lock Channels

This submenu allows you to lock channels to control access to them. Once a channel is locked, you will be asked to enter a password whenever you try to watch it. You can select TV or Radio channels in an alternative way by pressing the **TV/RADIO** button. You can choose a channel list group by pressing the **GROUP** button.

* ***If you set 'Lock Channel Confirm' (refer to <6.2>security setting) to OFF, you will not be asked to enter a password even if the channel is locked.***

❶ Press OK on 'Lock Channels'. The following menu will be displayed. <Figure 6.3.5>

❷ Press OK on the channel that you want to lock/unlock; the lock icon will be displayed/removed.

❸ Press the **EXIT** button to return to the previous menu.

<Figure 6.3.5>

6.3 Channels

5) Skip Channels

This submenu allows you to skip channels. Once a channel is set to be skipped, it will be whenever you navigate channels using / in non-menu mode. You can select TV or Radio channels in an alternative way by pressing the **TV/RADIO** button. You can choose a channel list group by pressing the **GROUP** button.

∗ Note : You can still access a 'skipped' channel if you enter its number using the NUMERIC buttons in non-menu mode.

❶ Press on 'Skip Channels'. The following menu will be displayed.<Figure 6.3.6>

❷ Press on the channel that you want to skip/un-skip; the skip icon will be displayed / removed.

❸ Press the **EXIT** button to return to the previous menu.

<Figure 6.3.6>

6) Delete Channels

This submenu allows you to delete channels. You can select TV or Radio channels in an alternative way by pressing the **TV/RADIO** button. You can choose a channel list group by pressing the **GROUP** button.

∗ Note : Be careful! If you delete a channel, you will not be able to access it again until you rescan.

❶ Press OK on 'Delete Channels'. The following menu will be displayed. <Figure 6.3.7>

❷ Press OK on the channel that you want to set/unset for deletion; the delete icon will be displayed/removed.

❸ Press the **INFO** button to delete all channels in the current list; you will be asked to enter your password.

❹ Press the **EXIT** button to return to the previous menu and confirm deletion.

<Figure 6.3.7>

6.4 Electronic Program Guide

English

1) EPG

This submenu allows you to access the electronic program guide when available.

❶ Press the **GUIDE** button to display the guide menu. <Figure 6.4.1>

❷ Press ◀ / ▶ to see the previous/next guide.

❸ Press ▲ / ▼ / ◀ / ▶ to select another channel. <Figure 6.4.1>

❹ Press OK to watch the selected channel and access its EPG data.

If you press OK in the right side of the screen (Event display list).

- If the current time EPG is selected, you will return to the previous menu and get signal from the selected channel.
- If a future time (next) EPG is selected, the selected program will be reserved and the event color will change.

❺ You can select TV or Radio channels by pressing the **TV/RADIO** button

❻ You can choose a channel list group by pressing the **GROUP** button.

❼ You can access the timer menu by pressing the **RED** button. <Figure 6.4.2>

2) Timer

This sub menu allows you to set the on/off time of your receiver.

❶ This submenu allows you to set on/off times of your receiver. To display the timer menu, press the **RED** button while in the guide menu. <Figure 6.4.2>

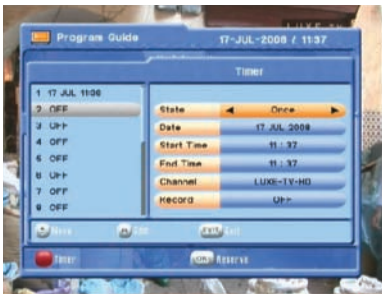
❷ Press OK to select a timer's parameter.

❸ Press ▲ / ▼ to change the parameter.

- **Timer No :** Select the timer that you want to modify. (1- 8)
- **State :** Select the timer frequency. (off/once/daily/weekly)
- **Date :** Press OK to display a Calendar pop-up; Select a date
- **Start Time :** Input the time for your receiver power-on; use the **NUMERIC** buttons
- **End Time :** Input the time for your receiver power-off; use the **NUMERIC** buttons
- **Channel :** Press OK to display a Channel list pop-up; Select a channel

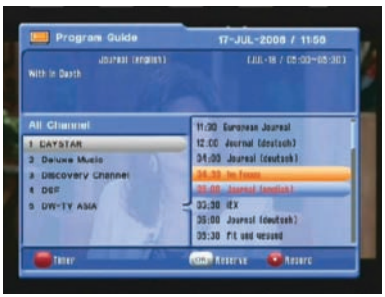
6.4 Electronic Program Guide

<Figure 6.4.1>



<Figure 6.4.2>

- If you want to record a program in the right side of the screen, you can select a program by using . The selected program will be reserved and the evnet color text will change to red. <Figure 6.4.3>.
- You can also see change the timer menu.<Figure 6.4.4>



<Figure 6.4.3>

<Figure 6.4.4>

6.5 Games

1) Tetris

❶ Press OK on 'Tetris'. The following menu will be displayed. <Figure 6.5.1>

❷ You can choose a skill level using ◀ / ▶.

❸ Press OK to start the game <Figure 6.5.2>, or press the **EXIT** button to return to the previous menu.

❹ Press OK to rotate a block.

❺ Press ◀ / ▶ to move a block.

❻ Press ▼ to drop a block.

❼ You can see the next block in the top-right small window.

❽ Press the **EXIT** button to quit the game.

<Figure 6.5.1>

<Figure 6.5.2>

2) Sokoban

How to play Sokoban: you have to push the balls to their correct positions. The balls can only be pushed, never pulled, so you have to be careful not to push them into a corner where you can't get them out from. You can only push one ball at a time.

❶ Press OK on 'Sokoban'. The following menu will be displayed. <Figure 6.5.3>

❷ You can choose a skill level using ◀ / ▶.

❸ Press OK to start the game <Figure 6.5.4>, or press the **EXIT** button to return to the previous menu.

❹ Press ▲ / ▼ / ◀ / ▶ to move.

❺ Press the **RED** button to undo the previous move. You can undo only one step.

❻ Press the **GREEN** button to restart the game.

❼ Press the **YELLOW/BLUE** buttons to jump to the previous/ next level. You can jump only between completed levels.

❽ Press the **EXIT** button to quit the game.

<Figure 6.5.3>

<Figure 6.5.4>

6.5 Games

3) Snake

❶ Press OK on 'Snake'. The following menu will be displayed. <Figure 6.5.5>

❷ You can choose a skill level using ◀ / ▶.

❸ Press OK to start the game <Figure 6.5.6>, or press the **EXIT** button to return to the previous menu.

❹ Press ▲ / ▼ / ◀ / ▶ to move.

❺ Pass through the **GREEN** icon to increase your score; the length of the snake increases.

❻ Pass through the **RED** icon to decrease the snake's length.

❼ Avoid the **BLACK** icons. If you hit a **BLACK** icon (block), the game ends.

❽ Press the **EXIT** button to quit the game.

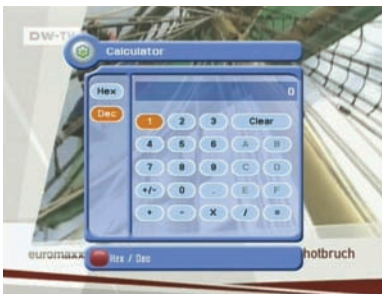
<Figure 6.5.5>

<Figure 6.5.6>

4) Calculator

This submenu allows you to use a calculator on the screen. <Figure 6.5.7>

- You can switch between Hex (Hexadecimal) and Dec (Decimal) basis for arithmetic with the **RED** button of the remote control unit.
- Use the Numerical and the ◀ / ▶ / OK buttons on the remote control unit.



<Figure 6.5.7>

6.6 Storage

This submenu allows you to play various MP3 files, view JPG files or download a new software by connecting your USB flash drive.

1) MP3 menu

❶ Select the MP3 file you want to play back by using / , in the file list. <Figure 6.6.1>

❷ Press the EXIT button to hide the file list. You can then select an option using / , . <Figure 6.6.2>

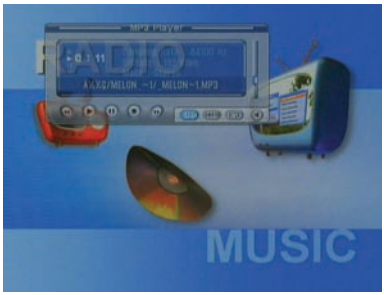
❸ You can then change the volume by pressing / .

❹ Press on LIST to display the MP3 file list.

❺ Press on INFO to display information about the selected MP3 file.

- **FILELIST** : Shows/Hides the MP3 file list
- **INFO** : Shows information about the MP3 file you selected.
- **YELLOW** : Choose the Hard disk volume or usb device with USB hub.

<Figure 6.6.1>



<Figure 6.6.2>

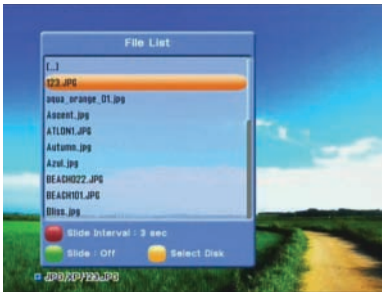
6.6 Storage

2) JPG menu

❶ Press ◀ / ▶ to select a picture. <Figure 6.6.3>

❷ Press OK to show the picture you want to display.

- **RED** : Sets the time interval between slides.
- **GREEN** : Selects slide show.
- **YELLOW** : Choose the Hard disk volume or usb device with USB hub.
- **FILELIST** : Shows/Hides the JPEG file list.



<Figure 6.6.3>

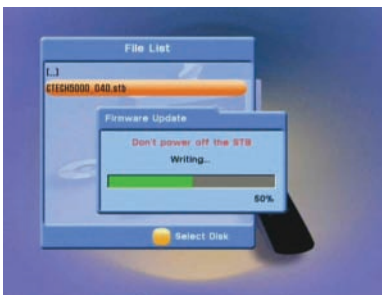
3) Data Transfer menu

❶ Select the software you want to download by using ◀ / ▶ in the list <Figure 6.6.4>

❷ Press OK to start software downloading

- **RED :** Upload the current CNDF(compressed dish and channel data file).
- **YELLOW :** Choose the Hard disk volume or usb device with USB hub.

∗ ***Warning : Please do not switch off your receiver before software downloading is completed.***



<Figure 6.6.4>

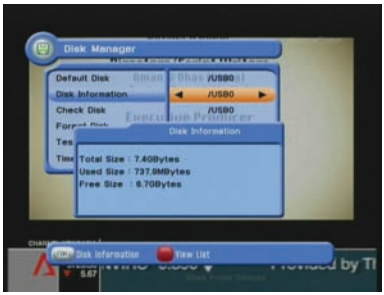
4) Disk Manager

- Default Disk : Set the pvr disk.

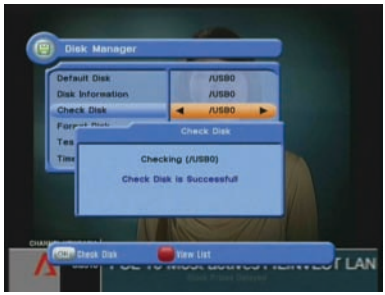
∗ Note : If External SATA is connected, External SATA can be captured in "volume0". Otherwise, one of other disks can be captured in "volume0"

- Disk Information : Choose the Hard disk volume or usb device with USB hub. You can view a information of usb devices (used size, total size, free size) <Fig 6.6.5>

- Chek Disk : Choose the Hard disk volume or usb device with USB hub. You can check the usb devices. <Fig 6.6.6>



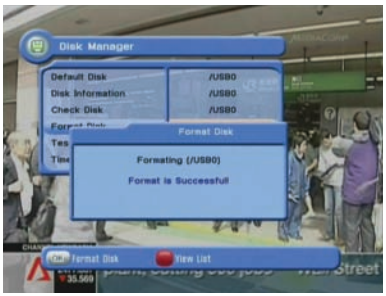
<Figure 6.6.5>



<Figure 6.6.6>

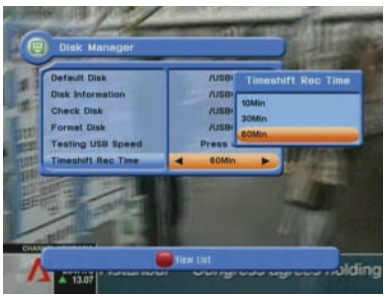
6.6 Storage

- **Format Disk** : You can format the usb devices. <Fig 6.6.7>
- **Testing USB Speed :** USB speed test.
- **Timeshift Rec Time :** You can change default timeshift recording time.



<Figure 6.6.7>

<Figure 6.6.8>



<Figure 6.6.9>

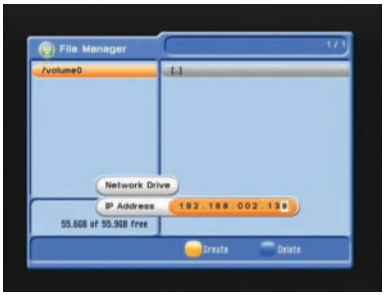
5) File manager

❶ Press YELLOW button for connect PC. <Figure 6.6.10>

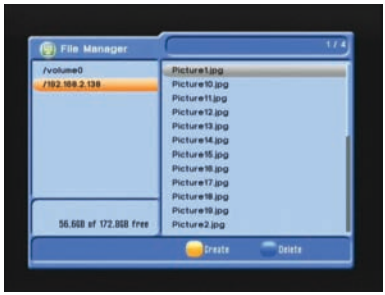
❷ Press OK button after input IP address of PC.

❸ Press OK button after choose target.

∗Note : Have to run PC tool before connect PC.



<Figure 6.6.10>



<Figure 6.6.11>

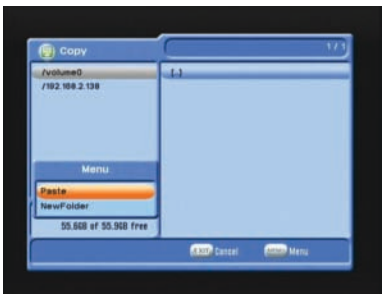
❹ Press Right button and Press RED for chooses files. <Figure 6.6.12>

❺ Press OK button to choose Copy/Move/NewFolder/Delete/Rename after press MENU button.

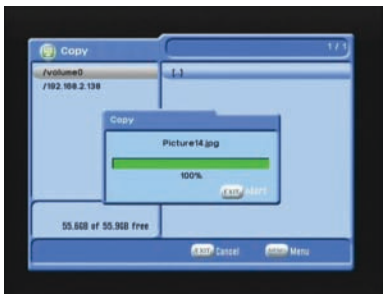
❻ If select copy or move, press button to move target for paste.

❼ Press MENU button to paste taget.

❽ Select a Paste for Copying or Moving files.



<Figure 6.6.12>

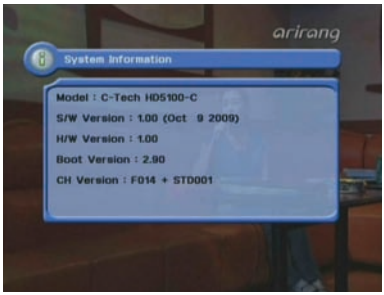


<Figure 6.6.13>

6.7 System Information

You can check the current information about your receiver such as receiver model name, S/W (software) version, H/W (hardware) version, manufacturing date, etc.
<Figure 6.7.1>

∗ Note : This information is useful to download new software and/or repair the receiver.


arirang
System Information
Model : C-Tech HD5100-C
S/W Version : 1.00 (Oct 9 2009)
H/W Version : 1.00
Boot Version : 2.90
CH Version : F014 + STD001

<Figure 6.7.1>

6.8 Common Interface

1) CAM Initializing

To enjoy scrambled channels, you will need a Common Interface Conditional Access Module (CAM) and a Smart Card from the service provider (program distributor). If you are subscribing to services from more than one service provider, you will need a Smart Card from each one, and may even need different CAMs (depending on the DVB Common Interface standard each uses). Since a Smart Card is connected to a single service provider, a limited range of channels will be available via it.

∗ Note : Without the CAM and the smart card, you can watch only Free-to-Air programs.

❶ Insert a CAM into a receiver's slot designed for it, and a Smart Card into the CAM.

❷ The message 'CAM Initializing' will appear on the screen. <Figure 6.8.1>

❸ After the message 'CAM Initializing' has disappeared, you can select the channel that you want to watch.

<Figure 6.8.1>

2) The Status of the CAM

❶ You can access detailed information about the CAM using the / keys in the Main Menu to select 'CI' and pressing . <Figure 6.8.2>

❷ Proceed with further instructions displayed on the screen to check more detailed information depending on the CAM in use.

∗ ***Note : Further detailed information is not mentioned in this manual since the information depends on the CAM in use.***

<Figure 6.8.2>

6.9 Conditional Access System

1) Card Initializing

To Enjoy CONAX CAS7 scrambled channels, you will need a Smart Card from the service provider (program distributor). If you are subscribing to services from more than one service provider, you will need a Smart Card from each one. Since a Smart Card is connected to a single service provider, a limited range of channels will be available via it.

∗ Note : Without the Smart Card, you can watch only Free-To-Air programs.

❶ Insert the Smart Card into the receiver's slot designed for it.

❷ The message **'Smart Card Initializing'** will appear on the screen. <Figure 6.9.1>

❸ After the message **'Smart Card Initializing'** has disappeared, you will be able to watch the channels offered by the service provider.

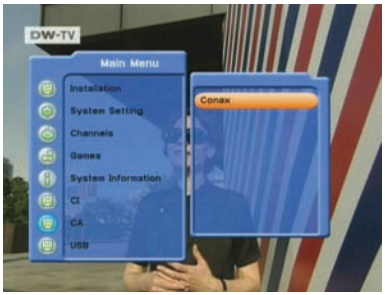
<Figure 6.9.1>

2) The Status of the Smart Card

❶ You can access detailed information about the Smart Card using the / keys in the Main Menu to select **'CA'** and pressing . <Figure 6.9.2>

❷ Proceed with further instructions displayed on the screen to check more detailed information depending on the Smart Card in use.

∗ ***Note : Further detailed information is not mentioned in this manual since the information depends on the Smart Card in use.***



<Figure 6.9.2>

6.10 PVR

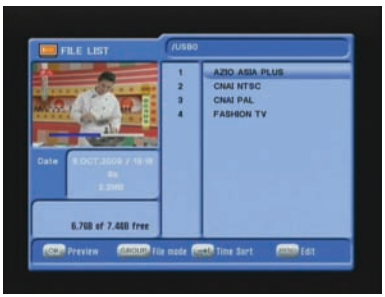
1) File List

▶ File Playback

❶ Press to show the file list. Select the file you want to play back by using / , .

❷ Press . In the left side of screen, detailed information about the selected file will be displayed. (Recorded Date/Time, Used size, Total Size) <Figure 6.10.1>

- To see a full screen, press once more. And then the following time-bar will appear. <Figure 6.10.2>



<Figure 6.10.1>

<Figure 6.10.2>

▶ **Edit Menu**

You will be asked to enter a password whenever you try to enter it. Press MENU. The pop-up menu for selection will appear<Figure 6.10.3>.

Select the item that you want to edit, and set its parameters as desired

❶ Normal Mode : Press OK on the file that you can see the preview of a selected file.

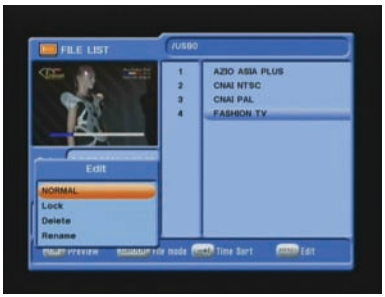
❷ Lock Mode : Press OK on the file that you want to lock/unlock.

❸ Delete Mode : Press OK on the file that you want to delete.

- **GROUP** : Select between, File Mode ↔ Dir Mode
- **ADVANCE** : Shows all sorted files. Select between, Sort by name ↔ Sort by time.

∗ ***If you set 'Channel Lock' (refer to <Figure 6.2.4>security setting) to OFF, you will not be asked to enter a password even if the channel is locked.***

❹ Rename Mode : Press the OK button on the file that you want to rename.



<Figure 6.10.3>

6.10 PVR

2) Trick Mode

You can operate the trick mode while you are playing the recording files. These functions are available in playback mode or time-shift mode powerfully.

▶ PLAY

This button will display a time- banner. If you want to show the play list while playing the file by using .

▶ PAUSE

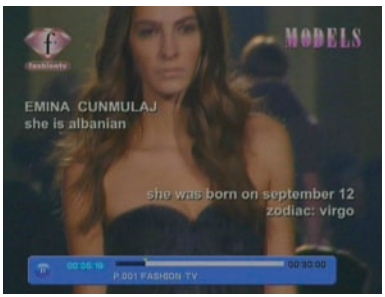
This button will pause the playing file until you play again with or . <Figure 6.10.4>

▶ ADVANCE

- If the time-shift mode is enabled, You can press to jump the live program.
- If the playback mode is enabled, You can press to stop the current playing file and then jumping the live program.

▶ FF(Fast Forward)

- When playing the file, you can press to adjusting the playing speed.<Figure 6.10.5>
- The speed will change to x2, x4, x8.



<Figure 6.10.4>

<Figure 6.10.5>

6.10 PVR

▶ RWD(Rewind)

When playing the file, you can press to adjusting the playing speed. <Figure 6.10.6>

The speed will change to x2, x4, x8.

▶ Slow(1/2x, 1/4x)

When playing the file, you can press to adjusting the playing speed. <Figure 6.10.7>

<Figure 6.10.6>

<Figure 6.10.7>

▶ Jump

- You can locate the control position to the desired position by using the / .
- If you press this key continuosly, You can locate the control position to the desired position very quickly.

▶ Skip

- You can skips and forward in 15 seconds using the .
- You can skips and backward in 15 seconds using the .

6.10 PVR

▶ **Bookmark**

To mark a specific place in a file for later retrieval. <Figure 6.10.8>

- RED : Press this button and red small triangle cursor will be placed at that position. If you want to delete the bookmarked position, press a this button once more when red small triangle cursor appear.

- GREEN : Press this button and the current position will jump to the next bookmarked position and playback starts from this point.

- YELLOW : Press this button and the current position will jump to the pre-bookmarked position and playback starts from this point.

∗ Note : The maximum number of the bookmark is 20 in a file.

<Figure 6.10.8>

4) Instant Recording

❶ You can record a current channel by using . If you then press , a time-banner will be displayed.<Figure 6.10.9>

❷ Press once more. The following picture shows that you can select item when you record a current channel. <Figure 6.10.10>

- **Channel** : It shows a current channel.
- **Name** : It shows a current recording name.
- **Duration** : You can change the duration of recording time by using the / . And current recorded time appear.

<Figure 6.10.9>

<Figure 6.10.10>

∗ ***Note : 1. Do not remove the USB device while recording a program.***

6.10 PVR

5) Timer Recording

This function is availabe when usb device is connected. You can choose a channel to record the Program Guide menu by using . (Refer to 6.4 Electric Program Guide, 2)Timer)

6) Time Shift

❶ If you want to pause and resume live TV channel, press **PAUSE** button. The default time of Time-Shift is 30 min in your STB. <Figure 6.10.11>

❷ If you want to resume live TV channel, press **PLAY** button. <Figure 6.10.12>

❸ The trick-mode operations are provided. If you want to jump to live channel, please press .

<Figure 6.10.11>

<Figure 6.10.12>

Troubleshooting

There may be various reasons for the abnormal operation of the unit. Therefore, if the unit does not work properly, check it according to the procedures shown in the table below:

Problem	Possible causes	Remedy
The LED light on the front panel does not light.	The AC power cord is disconnected.	Connect the power cord properly into the power socket.
No Picture or sound.	Wrong connection of the video/audio output to the TV input terminal.	Connect the two terminals correctly with RCA or RF cable(s), SCART or HDMI cable(s).
	Wrong connection of the satellite antenna cable.	Connect the antenna cable correctly.
	Wrong direction of the satellite antenna.	Adjust the direction of the antenna.
	No signal or weak signal.	Check the cable connections, the LNB and other equipment connected between the LNB and the receiver, or adjust the antenna.
	Wrong setting of channel information in the MENU screen.	Type the setting values correctly.
Black-and-white screen or V-Hold.	Your TV mode (PAL/NTSC) is different from the satellite broadcasting mode.	Use a TV of the same mode.
		Connect a NTSC/PAL converter between the receiver and the TV.
The remote controller is not working.	Batteries are exhausted.	Change the batteries.
	Fluorescent light is interfering with the remote controller.	Switch off the light.
	Remote controller is incorrectly aimed.	Aim the remote control at the receiver.

Specifications

System capabilities	Fully DVB compliant	
satellite	Connector	IEC 169-24, female
LNB/Tuner input	Frequency range	950MHz ~ 2150MHz
	Signal level	-65dBm ~ -25dBm
	LNB supply	DC 13/18V, max 400mA
	LNB switch control	22KHz
	DiSEqC	Ver 1.0/1.1/1.2/USALS Compatible
Demodulator	Front end	DVB-S/S2 QPSK, 8PSK
	Symbol rate	DVB-S : 2~45Msps
		DVB-S2 : 10~30Msps(QPSK) 10~30Msps(8PSK)
	SCPC and MCPC Capable	
	Spectral inversion	Auto conversion
TERRESTRIAL	Input connector	IEC 169-2, Female
System capabilities	Loop-through out	IEC 169-2, Male
Tuner	Frequency range	170 ~ 230 MHz, 470 ~ 862MHz
& Channel Decoder	Input impedance	75 Ohms Nominal
	Signal level	7,8MHz(-78dBm~-25dBm) switchable by software
	IF Bandwidth	7,8MHz(-3dB) switchable by software
	Waveform	OFDM
	Carrier Mode	2k and 8k hierarchical/non-hierarchical
	Code Rate	1/2, 2/3, 3/4, 5/6, 7/8
	Guard Interval	1/4, 1/8, 1/16, 1/32
System resource	Processor	32bit processor (266MHz)
	DDR SDRAM	32Mbyte X 4
	FLASH	8Mbyte
	EEPROM	256Kbit
Video decoder	MPEG 2	MPEG-2, MPEG-4, H.264
	Data Rate	up to 15M bits/s
	Resolution	1920 X 1080i, 1280 X 720P, 720 X 576P/i
	Video format	PAL
	Aspec Ratio	4:3,16:9
Teletext	DVB compliant	
MPEG Audio	MPEG 1 layer 1 &2	
	Type	Mono, Stereo, Joint Stereo
	Sampling rates	32, 44.1 and 48 KHz
Serial data interface	Connector	9pin D-sub male, Max 115K bps

Remote control	Code	NEC-IR
	Operating condition	up to 7 Meter
USB	USB Supply(Front/Rear)	DC 5V Max 500mA
Power supply	Power consumption	max 50W
	Supply voltage	100V ~ 250V
	Passive standby	<1W
	Supply frequency	50Hz ~ 60Hz
Rear Panel connectors	TV SCART	CVBS Video output,
		Loop-through RGB output
		Audio Out
	VCR SCART	Video Out(CVBS)
		Video In(CVBS, RGB)
		Audio Out(L, R)
	Video	1 X RCA cinch
	Audio L/R	2 X RCA cinch
	Component(Y/Pb/Pr)	3 X RCA cinch
	Serial data	9pin D-sub
	Digital tuner input	IEC 169 - 24
	Loop-through Digital tuner	IEC 169 - 24
	Terrestrial ant input	IEC 169 - 2
	Terrestrial ant output	IEC 169 - 2
	S/PDIF	Fiber Optic
	HDMI	Digital Video/Audio Output
	USB	USB A-type
	SATA	External SATA
	LAN	RJ-45

Physical Specification	Size (W X H X D)	335 X 58.5 X 247(mm)
	Weight (Net)	3 Kg

Disposal of Old Electrical & Electronic Equipment(Applicable in the European Union and other European Countries with separate collection systems)

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropirate waste handling of this product. The recycling of materials will help to conserve natural resources.
For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.